FIG. 1

Parallel Fan Powered VAV Terminal w/ heat Delivery Book

MODEL VERIFICATION		Unit Tag (FPVAV)
		VAV A-4
1. Manufacturer	Submitted	
	Delivered	
2. Model Number	Submitted	
	Delivered	
3. Max/Min Airflow (cfm)	Submitted	/
	Delivered	/
4. Serial Number	Submitted	N/A
	Delivered	
5. Inlet Diameter, inches	Submitted	
	Delivered	
6. Heating MBH/gpm	Submitted	/
	Delivered	/
7. Fan Power/Speed, (hp/rpm)	Submitted	/
	Delivered	/
8. Total Static Pressure, in w.g.	Submitted	
	Delivered	

PHYSICAL CHECKS	
1. The box is free of physical damage	yes / no
2. The air openings to the box are sealed with durable plastic	yes / no
3. The airflow sensing tubing is plugged	yes / no
4. The local electrical disconnect is in the proper location	yes / no

PHYSICAL CHECKS	
5. The enclosure for the DDC control panel is in the proper location	yes / no
6. The grommets for the airflow sensing tubing are secure	yes / no
7. Unit tags affixed	yes / no
8. Manufacturer's ratings readable/accurate	yes / no

Tracking Cards	
1. Pull the Appropriate Tracking Card Labeled ------>	VAV A-4

"No" Responses:

Item	Reason for "No"	Item

FIG. 2

Parallel Fan Powered VAV Terminal w/ heat # _____ - _____ [Fill in Tag #]

Hanging

[fill in box number]

Instructions: Step 1: Circle Yes or No, or fill in with requested information.
Step 2: Explain all "No" responses at the bottom of the card.
Step 3: Attach bar code sticker from equipment when finished, return card to your Field Supervisor.

Item		Response	
1	Unit identification tag easily visible	Yes	No
2	Unit is individually supported from structure and not from adjacent ductwork	Yes	No
3	Adequate clearance around control box fro maintenance	Yes	No
4	Clear access below box to remove bottom access panel for easy maintenance	Yes	No
5	Metal to metal connections eliminated to prevent noise problems	Yes	No
6	All shipping and intallation materials are removed	Yes	No
7	Box openings temporarily sealed to maintain system cleanliness	Yes	No

"No" Responses

Item	Reason for "No"

Place Sticker Here

FIG. 3

Parallel Fan Powered VAV Terminal w/ heat # _____ [Fill in Tag #]

Connecting Ductwork

[fill in box number]

Instructions: Step 1: Circle Yes or No, or fill in with requested information.
Step 2: Explain all "No" responses at the bottom of the card.
Step 3: Attach bar code sticker from equipment when finished, return card to your Field Supervisor.

Item		Response	
1	Balancing damper present on inlet duct	Yes	No
2	1 1/2 diameters of straight ductwork installed prior to VAV box damper	Yes	No
3	Ductwork free of transitions for at least 36"	Yes	No
4	Maintainable items (actuators, dampers, sensors, etc.) are accessible for easy maintenance	Yes	No
5	Flexible connector (vibration isolator) installed on inlet duct to avoid noise problems from metal to metal contact	Yes	No
6	Flex duct is installed in a way that avoids formind kinks on both inlet and outlet ductwork	Yes	No

"No" Responses

Item	Reason for "No"

Place Sticker Here

FIG. 4

Parallel Fan Powered VAV Terminal w/ heat # _____ [Fill in Tag #]

Piping Installation

[fill in box number]

Instructions: Step 1: Circle Yes or No, or fill in with requested information.
Step 2: Explain all "No" responses at the bottom of the card.
Step 3: Attach bar code sticker from equipment when finished, return card to your Field Supervisor.

Item		Response	
1	Piping is fully supported	Yes	No
2	Control valve and maintainable items are accessible	Yes	No
3	The following components are installed, from supply line to return line:	Yes	No
4	Ball valve		
5	Union-Coil-Union		
6	Manual air vent		
7	Pete's Plug		
8	2-way automatic control valve		
9	Manual drain valve		
10	Manual flow meter valve		

"No" Responses

Item	Reason for "No"

Place Sticker Here

FIG. 5

Parallel Fan Powered VAV Terminal w/ heat # _____ [Fill in Tag #]

Controls Installation

[fill in box number]

Instructions: Step 1: Circle Yes or No, or fill in with requested information.
Step 2: Explain all "No" responses at the bottom of the card.
Step 3: Attach bar code sticker from equipment when finished, return card to your Field Supervisor.

Item		Response	
1	Point-to-point connections of control wiring verified	Yes	No
2	Temperature sensor calibration verified	Yes	No
3	Central system accurately represents conditions of VAV box	Yes	No

"No" Responses

Item	Reason for "No"

Place Sticker Here

FIG. 6

Parallel Fan Powered VAV Terminal w/ heat # ________________ [Fill in Tag #]

Electrical

[fill in box number]

Instructions: Step 1: Circle Yes or No, or fill in with requested information.
Step 2: Explain all "No" responses at the bottom of the card.
Step 3: Attach bar code sticker from equipment when finished, return card to your Field Supervisor.

Item		Response	
1	Local disconnect installed in accessible location	Yes	No
2	Variable speed selector switch is operational	Yes	No
3	Motor rotation in proper direction	Yes	No
4	P.E. switch is operational	Yes	No

"No" Responses

Item	Reason for "No"

Place Sticker Here

FIG. 7

Parallel Fan Powered VAV Terminal w/ heat Contractor Book

Controls Start-up	VAV A-4
1. Cooling/heating (when present) sequence of control correct	yes / no
2. Warm-up/cool-down sequence of control correct	yes / no
3. Unoccupied sequence of control correct	yes / no

"No" Responses:

Item	Reason for "No"	Item

Place Sticker Here

FIG. 8

Parallel Fan Powered VAV Terminal w/ heat Contractor Book

TAB	VAV A-4
1. Modifying unit/system settings through temperature sensor working	yes / no
2. Airflow sensor calibration verified	yes / no
3. Minimum airflow, cfm (design/measured)	/
4. Maximum airflow, cfm (design/measured)	/

"No" Responses:

Item	Reason for "No"

Place Sticker Here

FIG. 9

VAV Terminal w/ heat VAV A-4 Controls Start-up	VAV Terminal w/ heat VAV A-4 TAB	VAV Terminal w/ heat VAV A-4 Delivery Book
VAV Terminal w/ heat VAV A-4 Hanging	VAV Terminal w/ heat VAV A-4 Connecting Ductwork	VAV Terminal w/ heat VAV A-4 Piping Installation
VAV Terminal w/ heat VAV A-4 Controls Installation	VAV Terminal w/ heat VAV A-4 Electrical	

FIG. 10

Piping Installation

Date: _____
[fill in current date]

Instructions: Step 1: Circle Yes or No, or fill in with requested information.
Step 2: Explain all "No" responses at the bottom of the card.
Step 3: Describe work completed today and return card to your Field Supervisor.

Item	Task Description	Response	
1	Piping is clean and free of damage prior to installation	Yes	No
2	Maximum support spacing is according to table on back, or closer as necessary	Yes	No
3	All connections meet specification requirements	Yes	No
4	All equipment requiring maintenance is accessible (valves, junction boxes, etc.)	Yes	No
5	All pipe openings temporary sealed to maintain duct system cleanliness	Yes	No
6	Record drawings have been updated to reflect any changes made	Yes	No

"No" Responses

Item	Reason for "No"

Briefly Detail Work Completed Today

_____
_____
_____
_____

FIG. 11

Ductwork Installation

Date: _____
[fill in current date]

Instructions: Step 1: Circle Yes or No, or fill in with requested information.
Step 2: Explain all "No" responses at the bottom of the card.
Step 3: Describe work completed today and return card to your Field Supervisor.

Item	Task Description	Response	
1	Ductwork is clean and free of damage prior to installation	Yes	No
2	There are supports every 6 feet, or less as required	Yes	No
3	All latitudinal and longitudinal joints are sealed (<1% leakage required)	Yes	No
4	All equipment requiring maintenance is accessible (valves, junction boxes, etc.)	Yes	No
5	All duct openings temporary sealed to maintain duct system cleanliness	Yes	No
6	Record drawings have been updated to reflect any changes made	Yes	No

"No" Responses

Item	Reason for "No"

Briefly Detail Work Completed Today

_____
_____
_____
_____

FIG. 12

VAV Terminal Construction Checklist

XYZ Corporate Headquarters
Equipment Number: VAV A-1

1) Model Verification

A	Data to Verify:	Specified	Submitted	Installed
	Manufacturer			
	Model			
	CFM (Max/Min)	/	/	/
	Serial Number			
	Inlet Diameter, inches			
	Heating MBH/gpm			
	Fan Power, hp			
	Total Static Pressure, psig			

2) Pre-Installation Checks

The following must be completed upon delivery of equipment to the work-site.

		Contractor	Initials	Sq Ft
A	Physical Checks	Mechanical		
	There is no physical damage to the box	yes / no		
	The air openings to the box are sealed with durable plastic	yes / no		
	The airflow sensing tubing is plugged	yes / no		
	The local disconnect is in the proper location	yes / no		
	The enclosure for the DDC control panel is in the proper location	yes / no		
	The grommets for the airflow sensing tubing are secure	yes / no		
	Unit tags affixed	yes / no		
B	Component Verification	Mechanical		
	Manufacturer's ratings are readable	yes / no		
	Manufacturer's ratings are accurate	yes / no		

FIG. 13

3) Physical Installation Checks

The following items need to be verified during installation. Fill in blanks with a checkmark, specific information, or circle "yes" or "no". For any negative responses, complete section 4.

		Contractor	Initials	
A	**Hanging of Box**	**Mechanical**		
	Unit, damper, and air valve tags affixed	yes / no		
	Unit secured as required in specifications	yes / no		
	Adequate clearance around controls for O&M			
	6" clearance in front of air valve for travel of inner valve rod	yes / no		
	1 1/2 duct diameters before the air valve	yes / no		
	No duct transitions upstream of box for 30"	yes / no		
	No obstructions below box to remove bottom access panel	yes / no		
	Vibration isolators in good condition	yes / no		
	No metal to metal connections to cause noise problems	yes / no		
	Box properly labeled (box tag easy to see)	yes / no		
B	**Ductwork - Primary Air Inlet**	**Mechanical**		
	Primary ductwork all hard or maximum flex duct length of 1 foot	yes / no		
	All inlet elbows long radius and no kinks in flex duct	yes / no		
	1 1/2 duct diameters prior to air valve	yes / no		
	No transitions upstream for at least 36"	yes / no		
	Record drawings accurate	yes / no		
	Vibration isolator if flex duct is not used	yes / no		
	Does not interfere with accessibility	yes / no		
C	**Ductwork - Outlet**	**Mechanical**		
	Vibration isolator in place with no holes	yes / no		
	No kinks in flex duct	yes / no		
	Record drawings accurate	yes / no		
D	**Controls**	**Controls**		
	Control wiring hooked up	yes / no		
	Temperature sensor hooked up	yes / no		
	Communication with central system	yes / no		
	Temperature sensor calibrated	yes / no		
	Cooling sequence of control correct (should be attached)	yes / no		
	Heating sequence of control correct (should be attached)	yes / no		
	Warm-up sequence of control correct (should be attached)	yes / no		
	Cool down sequence of control correct (should be attached)	yes / no		
	Unoccupied sequence of control correct (should be attached)	yes / no		

FIG. 14

E	Testing and Balancing (TAB)	TAB		
	Modifying unit / system settings throughout temperature sensor working	yes / no		
	Airflow sensor calibrated	yes / no		
	Actual min / max airflow (cfm)	/		

4) Negative Responses

For each negative response in sections 2 and 3, record the reason and resolution below. Attach extra sheets as necessary.

A	Item	Reason for Negative Response	Resolution

Fig. 15


XYZ XYZ Corporate Headquarters
3D
Return to Supervisor
Questions? Ask supervisor.